

The invention concerns locating mobile terminals in a mobile network. A location estimate is determined based on a parameter set received from the mobile network. In order to improve the accuracy of the system without a need for extensive prior field measurements or laborious data collection, a transition network is formed based on parameter sets. In said network an individual node represents a parameter set having a given parameter content, a link connecting two neighboring nodes represents a transition between two successive locations of a mobile terminal, and the position of a node relates to a certain geographical location. The transition network is then optimized by adjusting the positions of the nodes by means of the positions of their neighboring nodes and the movement within the network of some of the nodes is limited. The position of the node representing a parameter set received indicates the location of a mobile.